

In the Claims

The following is a complete listing of the claims in the application:

1. (Previously presented) A fatty acid-anticancer compound conjugate composition for administration to a subject, comprising at least one fatty acid-anticancer compound conjugate in a container for administration to a subject, wherein the amount of the fatty acid-anticancer compound in the container is at least about 30% on a molar basis greater than the maximum tolerated dose (MTD) in the subject for the unconjugated at least one anticancer compound, wherein the container is a container for intravenous administration.
- 2-4. (Canceled)
5. (Original) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the amount in the container is at least about 50% greater than the MTD for the unconjugated at least one anticancer compound.
6. (Canceled)
7. (Original) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the amount in the container is at least about 100% greater than the MTD for the unconjugated at least one anticancer compound.
- 8-11. (Canceled)
12. (Previously presented) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the anticancer compound is a taxane.
- 13-16. (Canceled)

17. (Previously presented) A method for treating a subject having an abnormal mammalian cell proliferative disorder, comprising administering to the subject a fatty acid-anticancer compound conjugate composition in an amount which is at least about 30% on a molar basis greater than the maximum tolerated dose (MTD) in the subject for the unconjugated at least one anticancer compound.

18-20. (Canceled)

21. (Original) The method of claim 17, wherein the amount of the fatty acid-anticancer compound conjugate composition administered is at least about 50% greater than the MTD for the unconjugated at least one anticancer compound.

22. (Canceled)

23. (Original) The method of claim 17, wherein the amount of the fatty acid-anticancer compound conjugate composition administered is at least about 100% greater than the MTD for the unconjugated at least one anticancer compound.

24-27. (Canceled)

28. (Original) The method of claim 17, wherein the anticancer compound is a taxane.

29-32. (Canceled)

33. (Previously presented) A kit for administration of a fatty acid-anticancer compound conjugate composition to a subject, comprising

a container containing at least one fatty acid-anticancer compound conjugate, and instructions for administering the at least one fatty acid-anticancer compound conjugate to subject in need of such treatment in an amount which is at least about 30% on a molar basis

greater than the maximum tolerated dose (MTD) in the subject for the unconjugated at least one anticancer compound.

34-56. (Canceled)

57. (Original) An injectable preparation of at least one fatty acid-taxane conjugate composition, comprising greater than about 6 mg/ml of the at least one fatty acid-taxane conjugate composition.

58-61. (Canceled)

62. (Original) The injectable preparation of claim 57, wherein the preparation comprises greater than about 20 mg/ml of the at least one fatty acid-taxane conjugate composition.

63-64. (Canceled)

65. (Original) The injectable preparation of claim 57, wherein the preparation comprises greater than about 80 mg/ml of the at least one fatty acid-taxane conjugate composition.

66-68. (Canceled)

69. (Previously presented) An injectable composition of at least one fatty acid-taxane conjugate in a polyoxyethylated castor oil, comprising less than about 0.3 mg/ml of the at least one fatty acid-taxane conjugate.

70. (Original) A fatty acid-taxane conjugate composition, comprising greater than about 6 mg/ml of at least one fatty acid-taxane conjugate, and a surfactant.

71-74. (Canceled)

75. (Original) The fatty acid-taxane conjugate composition of claim 70, wherein the amount of the at least one fatty acid-taxane conjugate is greater than about 20 mg/ml.

76-77. (Canceled)

78. (Original) The fatty acid-taxane conjugate composition of claim 70, wherein the amount of the at least one fatty acid-taxane conjugate is greater than about 80 mg/ml.

79-81. (Canceled)

82. (Previously presented) The fatty acid-taxane conjugate composition of claim 70, wherein the surfactant is a polyoxyethylated castor oil.

83. (Canceled)

84. (Original) A fatty acid-taxane conjugate composition, comprising at least one fatty acid-taxane conjugate and a surfactant, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the surfactant is at least about 50 mg/ml.

85-88. (Canceled)

89. (Original) The fatty acid-taxane conjugate composition of claim 84, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the surfactant is at least about 100 mg/ml.

90. (Previously presented) The fatty acid-taxane conjugate composition of claim 84, wherein the surfactant is a polyoxyethylated castor oil.

91-93. (Canceled)

94. (Original) The fatty acid-taxane conjugate composition of claim 84, further comprising a solvent.

95-96. (Canceled)

97. (Original) A fatty acid-taxane conjugate composition, comprising at least one fatty acid-taxane conjugate and a solvent, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the solvent is at least about 42 mg/ml.

98-100. (Canceled)

101. (Original) The fatty acid-taxane conjugate composition of claim 97, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the solvent is at least about 80 mg/ml.

102. (Canceled)

103. (Previously presented) The fatty acid-taxane conjugate composition of claim 97, wherein the solvent is a polyoxyethylated castor oil.

104-106. (Canceled)

107. (Original) The fatty acid-taxane conjugate composition of claim 97, further comprising a surfactant.

108. (Previously presented) The fatty acid-taxane conjugate composition of claim 107, wherein the surfactant is a polyoxyethylated castor oil.

109. (Canceled)

110. (Original) A fatty acid-taxane conjugate composition, comprising at least about 37 mg/ml of at least one fatty acid-taxane conjugate.

111-113. (Canceled)

114. (Original) The fatty acid-taxane conjugate composition of claim 110, wherein the amount of the at least one fatty acid-taxane conjugate is least about 80 mg/ml.

115-118. (Canceled)

119. (Previously presented) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the amount in the container is at least about 40% greater than the MTD for the unconjugated at least one anticancer compound.

120. (Previously presented) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the amount in the container is at least about 75% greater than the MTD for the unconjugated at least one anticancer compound.

121. (Previously presented) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the container is a container for intravenous administration.

122. (Previously presented) The fatty acid-anticancer compound conjugate composition of claim 12, wherein the taxane is paclitaxel or docetaxel.

123. (Previously presented) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the conjugate is not encapsulated in a liposome.

124. (Previously presented) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the fatty acid is docosahexaenoic acid.

125. (Previously presented) The method of claim 17, wherein the amount of the fatty acid-anticancer compound conjugate composition administered is at least about 40% greater than the MTD for the unconjugated at least one anticancer compound.

126. (Previously presented) The method of claim 17, wherein the amount of the fatty acid-anticancer compound conjugate composition administered is at least about 75% greater than the MTD for the unconjugated at least one anticancer compound.

127. (Previously presented) The method of claim 28, wherein the taxane is paclitaxel or docetaxel.

128. (Previously presented) The method of claim 17, wherein the conjugate is not encapsulated in a liposome.

129. (Previously presented) The method of claim 17, wherein the fatty acid is docosahexaenoic acid.

130. (Previously presented) The kit of claim 33, wherein the amount of the at least one fatty acid-anticancer compound conjugate is at least about 40% greater than the MTD for the unconjugated at least one anticancer compound.

131. (Previously presented) The kit of claim 33, wherein the amount of the at least one fatty acid-anticancer compound conjugate is at least about 75% greater than the MTD for the unconjugated at least one anticancer compound.

132. (Previously presented) The kit of claim 33, wherein the at least one fatty acid-anticancer compound conjugate is a taxane.

133. (Previously presented) The kit of claim 132, wherein the taxane is paclitaxel or docetaxel.

134. (Previously presented) The kit of claim 33, wherein the conjugate is not encapsulated in a liposome.

135. (Previously presented) The kit of claim 33, wherein the fatty acid is docosohexaenoic acid.

136. (Previously presented) A method for increasing the therapeutic index of anticancer compounds in a subject, comprising:

conjugating a fatty acid to an anticancer compound to form a fatty acid-anticancer compound conjugate; and

administering the fatty acid-anticancer compound conjugate to the subject, whereby the therapeutic index of the anticancer compound is improved relative to non-conjugated formulations of the anticancer compound, and wherein the fatty acid-anticancer compound conjugate is in an amount which is at least about 30% on a molar basis greater than the maximum tolerated dose (MTD) in the subject for the non-conjugated anticancer compound.

137. (Previously presented) The method of claim 136, wherein the anticancer compound is a taxane.

138. (Previously presented) The method of claim 137, wherein the taxane is paclitaxel or docetaxel.

139. (Previously presented) The method of claim 136, wherein the conjugate is not encapsulated in a liposome.

140. (Previously presented) The method of claim 136, wherein the fatty acid is a C8-C26 unbranched, naturally occurring fatty acid.

141. (Previously presented) The method of claim 140, wherein the fatty acid is docosohexaenoic acid.
142. (Previously presented) The method of claim 136, wherein the subject is human.
143. (Previously presented) A method for administering a fatty acid-taxane conjugate to a subject in need of such treatment, comprising infusing the conjugate in fewer than 3 hours.
144. (Previously presented) The method of claim 143, wherein the conjugate is infused in 2 hours or less.
145. (Previously presented) The injectable preparation of claim 57, wherein the preparation comprises greater than about 7 mg/ml of the at least one fatty acid-taxane conjugate composition.
146. (Original) The injectable preparation of claim 57, wherein the preparation comprises greater than about 8 mg/ml of the at least one fatty acid-taxane conjugate composition.
147. (Original) The injectable preparation of claim 57, wherein the preparation comprises greater than about 10 mg/ml of the at least one fatty acid-taxane conjugate composition.
148. (Original) The injectable preparation of claim 57, wherein the preparation comprises greater than about 15 mg/ml of the at least one fatty acid-taxane conjugate composition.
149. (Original) The injectable preparation of claim 57, wherein the preparation comprises greater than about 40 mg/ml of the at least one fatty acid-taxane conjugate composition.
150. (Original) The injectable preparation of claim 57, wherein the preparation comprises greater than about 60 mg/ml of the at least one fatty acid-taxane conjugate composition.

151. (Original) The injectable preparation of claim 57, wherein the preparation comprises greater than about 100 mg/ml of the at least one fatty acid-taxane conjugate composition.

152. (Original) The injectable preparation of claim 57, wherein the fatty acid is a C8-C26 unbranched, naturally occurring fatty acid.

153. (Previously presented) The injectable preparation of claim 152, wherein the fatty acid is docosohexaenoic acid.

154. (Original) The fatty acid-taxane conjugate composition of claim 70, wherein the amount of the at least one fatty acid-taxane conjugate is greater than about 7 mg/ml.

155. (Original) The fatty acid-taxane conjugate composition of claim 70, wherein the amount of the at least one fatty acid-taxane conjugate is greater than about 8 mg/ml.

156. (Previously presented) The fatty acid-taxane conjugate composition of claim 70, wherein the amount of the at least one fatty acid-taxane conjugate is greater than about 10 mg/ml.

157. (Previously presented) The fatty acid-taxane conjugate composition of claim 70, wherein the amount of the at least one fatty acid-taxane conjugate is greater than about 15 mg/ml.

158. (Previously presented) The fatty acid-taxane conjugate composition of claim 70, wherein the amount of the at least one fatty acid-taxane conjugate is greater than about 40 mg/ml.

159. (Previously presented) The fatty acid-taxane conjugate composition of claim 70, wherein the amount of the at least one fatty acid-taxane conjugate is greater than about 60 mg/ml.

160. (Previously presented) The fatty acid-taxane conjugate composition of claim 70, wherein the amount of the at least one fatty acid-taxane conjugate is greater than about 100 mg/ml.

161. (Previously presented) The fatty acid-taxane conjugate composition of claim 70, wherein the fatty acid is a C8-C26 unbranched, naturally occurring fatty acid.

162. (Previously presented) The fatty acid-taxane conjugate composition of claim 161, wherein the fatty acid is docosohexaenoic acid

163. (Previously presented) The fatty acid-taxane conjugate composition of claim 82, wherein the concentration of polyoxyethylated castor oil is between about 9.6% and about 49.7% (vol/vol).

164. (Previously presented) The fatty acid-taxane conjugate composition of claim 84, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the surfactant is at least about 60 mg/ml.

165. (Previously presented) The fatty acid-taxane conjugate composition of claim 84, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the surfactant is at least about 70 mg/ml.

166. (Previously presented) The fatty acid-taxane conjugate composition of claim 84, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the surfactant is at least about 80 mg/ml.

167. (Previously presented) The fatty acid-taxane conjugate composition of claim 84, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the surfactant is at least about 90 mg/ml.

168. (Previously presented) The fatty acid-taxane conjugate composition of claim 84, wherein the fatty acid is a C8-C26 unbranched, naturally occurring fatty acid.

169. (Previously presented) The fatty acid-taxane conjugate composition of claim 168, wherein the fatty acid is docosahexaenoic acid.
170. (Previously presented) The fatty acid-taxane conjugate composition of claim 84, wherein the taxane is paclitaxel or docetaxel.
171. (Previously presented) The fatty acid-taxane conjugate composition of claim 94, wherein the solvent is ethanol.
172. (Previously presented) The fatty acid-taxane conjugate composition of claim 171, wherein the solvent and the surfactant are present in a ratio of about 1:1.
173. (Previously presented) The fatty acid-taxane conjugate composition of claim 97, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the solvent is at least about 50 mg/ml.
174. (Previously presented) The fatty acid-taxane conjugate composition of claim 97, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the solvent is at least about 60 mg/ml.
175. (Previously presented) The fatty acid-taxane conjugate composition of claim 97, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the solvent is at least about 70 mg/ml.
176. (Previously presented) The fatty acid-taxane conjugate composition of claim 97, wherein the ratio of the weight of the at least one fatty acid-taxane conjugate and volume of the solvent is at least about 100 mg/ml.
177. (Previously presented) The fatty acid-taxane conjugate composition of claim 97, wherein the fatty acid is a C8-C26 unbranched, naturally occurring fatty acid.

178. (Previously presented) The fatty acid-taxane conjugate composition of claim 177, wherein the fatty acid is docosahexaenoic acid.

179. (Previously presented) The fatty acid-taxane conjugate composition of claim 97, wherein the taxane is paclitaxel or docetaxel.

180. (Previously presented) The fatty acid-taxane conjugate composition of claim 108, wherein the solvent and the surfactant are present in a ratio of about 1:1.

181. (Previously presented) The fatty acid-taxane conjugate composition of claim 110, wherein the amount of the at least one fatty acid-taxane conjugate is least about 40 mg/ml.

182. (Previously presented) The fatty acid-taxane conjugate composition of claim 110, wherein the amount of the at least one fatty acid-taxane conjugate is least about 50 mg/ml.

183. (Previously presented) The fatty acid-taxane conjugate composition of claim 110, wherein the amount of the at least one fatty acid-taxane conjugate is least about 60 mg/ml.

184. (Previously presented) The fatty acid-taxane conjugate composition of claim 110, wherein the amount of the at least one fatty acid-taxane conjugate is least about 100 mg/ml.

185. (Previously presented) The fatty acid-taxane conjugate composition of claim 110, wherein the fatty acid is a C8-C26 unbranched, naturally occurring fatty acid.

186. (Previously presented) The fatty acid-taxane conjugate composition of claim 110, wherein the fatty acid is docosahexaenoic acid.

187. (Previously presented) The fatty acid-taxane conjugate composition of claim 110, wherein the taxane is paclitaxel or docetaxel.

188. (Previously presented) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the amount in the container is at least about 200% greater than the MTD for the unconjugated at least one anticancer compound.

189. (Previously presented) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the amount in the container is at least about 300% greater than the MTD for the unconjugated at least one anticancer compound.

190. (Previously presented) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the amount in the container is at least about 400% greater than the MTD for the unconjugated at least one anticancer compound.

191. (Previously presented) The fatty acid-anticancer compound conjugate composition of claim 1, wherein the fatty acid is a C8-C26 unbranched, naturally occurring fatty acid.

192. (Previously presented) The method of claim 17, wherein the amount of the fatty acid-anticancer compound conjugate composition administered is at least about 200% greater than the MTD for the unconjugated at least one anticancer compound.

193. (Previously presented) The method of claim 17, wherein the amount of the fatty acid-anticancer compound conjugate composition administered is at least about 300% greater than the MTD for the unconjugated at least one anticancer compound.

194. (Previously presented) The method of claim 17, wherein the amount of the fatty acid-anticancer compound conjugate composition administered is at least about 400% greater than the MTD for the unconjugated at least one anticancer compound.

195. (Previously presented) The method of claim 17, wherein the fatty acid is a C8-C26 unbranched, naturally occurring fatty acid.

196. (Previously presented) The kit of claim 33, wherein the amount of the at least one fatty acid-anticancer compound conjugate is at least about 50% greater than the MTD for the unconjugated at least one anticancer compound.

197. (Previously presented) The kit of claim 33, wherein the amount of the at least one fatty acid-anticancer compound conjugate is at least about 100% greater than the MTD for the unconjugated at least one anticancer compound.

198. (Previously presented) The kit of claim 33, wherein the amount of the at least one fatty acid-anticancer compound conjugate is at least about 200% greater than the MTD for the unconjugated at least one anticancer compound.

199. (Previously presented) The kit of claim 33, wherein the amount of the at least one fatty acid-anticancer compound conjugate is at least about 300% greater than the MTD for the unconjugated at least one anticancer compound.

200. (Previously presented) The kit of claim 33, wherein the amount of the at least one fatty acid-anticancer compound conjugate is at least about 400% greater than the MTD for the unconjugated at least one anticancer compound.

201. (Previously presented) The kit of claim 33, wherein the fatty acid is a C8-C26 unbranched, naturally occurring fatty acid.